

ILLINOIS FIELD AND HERBARIUM STUDIES

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Continued field and herbarium studies of Illinois plants have resulted in the discovery of several unreported or previously undocumented taxa for the state. These new additions to the flora are reported in this paper, in addition to locality records for other rare taxa in southern Illinois. All specimens cited are in the herbarium of Southern Illinois University (SIU), unless otherwise indicated.

TAXA NEW TO ILLINOIS

Cyperus iria L., an introduced southern sedge, was known to range in North America from Virginia east to southeastern Missouri, southwest to Texas, and east to Florida. Now Illinois may be added to the range. In Illinois, this species may be found sparingly in the wet meadows at Horseshoe Lake, Alexander County.

Of the twenty-one taxa of *Cyperus* found in Illinois, this species may be most likely confused with those in the following key.

- a. Scales 1.0-1.5 mm long; achenes 0.8-1.0 mm long. b.
 - b. Achenes white; spikelets about 1 mm broad; scales closely arranged *C. erythrorhizos*
 - b. Achenes brown or black; spikelets about 1.5 mm broad; scales somewhat remote from each other
..... *C. iria*
- a. Scales 1.5-4.5 mm long; achenes 1.0-2.8 mm long. c.
 - c. Scales remote, the tip of one just reaching the base of the one above; base of the achene enclosed in a corky sheath *C. engelmannii*
 - c. Scales approximate and overlapping; no corky sheath present at base of achene. d.
 - d. Some or all of the mature spikelets reflexed; spikelets subterete *C. lancastrimensis*
 - d. None of the spikelets (except sometimes the lowest pair) reflexed; spikelets flattened. e.

abandoned lot at the rear of 411 South 20 Street, Murphysboro, during the summer of 1968. The deeply divided involucre which subtends the blue flowers accounts for the common name. COLLECTION DATA: Jackson County: lot, rear of 411 S. 20 Street, Murphysboro, July 27, 1968, *R. H. Mohlenbrock* 16121.

Rorippa islandica Oeder var. **islandica**. This variety of Yellow Cress, new to the Illinois flora, was collected from mud and sand flats along the Mississippi River. In that habitat it occurs with the more abundant variety *fernaldiana* and a similar second species, *R. sessiliflora*.

Although normally found in the northeastern United States, Quebec, and Greenland, Steyermark (1960) reports a station in Harrison County, Missouri. COLLECTION DATA: Jackson County: Mississippi River mud and sand flats, Grand Tower, November 1, 1969, *D. Evans* 656.

Rubus procerus P. J. Muell., a native of Europe, is reported by Fernald (1950) as naturalized in the United States from Delaware to Virginia. Steyermark (1963) reports a Palmer collection from Newton County, Missouri. The authors collected this Illinois record from a roadside habitat in Randolph County, where it grows in abundance. The large drupelets are most edible. Among the many taxonomically difficult species of *Rubus* one encounters in Illinois, only three have leaflets with the underside whitened. These may be identified in the field by the following key:

- a. Stems glaucous *R. occidentalis*
- a. Stems not glaucous. b.
- b. Mature fruit red; prickles small, bristle-like or absent; leaves ovate-lanceolate
 *R. idaeus* var. *strigosus*
- b. Mature fruit black; prickles abundant, flat with a broad base; leaves broadly ovate *R. procerus*

COLLECTION DATA: Randolph County: roadside, 10 miles south of Chester, Illinois, July 21, 1970, *R. Mohlenbrock & D. Evans* 1113.

Croton texensis (Klotzsch) Muell. Jones and Fuller (1955) report that although Ferguson (1901) cites a Hall

collection of this species from Athens, Illinois, it is excluded from the Illinois flora since no specimen could be found to verify this report. However, a specimen of this species, collected by Hall from Athens, is on deposit in the herbarium of the Missouri Botanical Garden. This poisonous species normally ranges from South Dakota, south to Mexico, with introductions known from western Missouri, Alabama, and New England. COLLECTION DATA: Menard County Athens, *Hall* 514.

Hibiscus syriacus L. The Rose-of-Sharon is a small tree often planted, particularly in the past, as an ornamental. Occasionally specimens may be found around abandoned homesteads, although they generally do not appear to be spreading. A small grouping of specimens occurs along an abandoned road on the Little Grassy camp facilities of Southern Illinois University. At this site, there is indication that the plants have multiplied since their original planting some forty years ago. COLLECTION DATA: Jackson County: along dirt road, Little Grassy camp, Southern Illinois University, August 14, 1969, *R. H. Mohlenbrock* s.n.

Ascyrum hypericoides L. var. **hypericoides**. The range of the typical variety of *A. hypericoides* generally lies to the south and east of Illinois. On the other hand, var. *multicaule* (Michx.) Fern., is a relatively common taxa in dry woods, on slopes, and along ridges across the southern tip of Illinois. Variety *hypericoides* has never been reported from Illinois although there is a specimen of it, housed in the herbarium of the Missouri Botanical Garden, annotated by Dr. Preston Adams, the most recent monographer of the group. It is interesting to note, however, that Adams fails to attribute this variety to Illinois in his monograph (1957). Variety *hypericoides* differs from var. *multicaule* by its more ascending habit and by its narrower leaves which attain widths of only 4(-5) mm. COLLECTION DATA: Hancock County: Augusta, July, 1842, *S. B. Mead* s.n.

Hypericum punctatum Lam. var. **pseudomaculatum** (Bush) Fern. When a typical specimen of the Large Spotted St. Johns-wort is encountered, the first reaction is to con-

sider it a distinct species since the large flowers are so strikingly different from the similar but smaller-flowered var. *punctatum*. However, no other characters seem to exist which can reliably distinguish var. *pseudomaculatum* from var. *punctatum*. A frequently used character to separate these two entities is the uppermost leaves obtuse in var. *punctatum* and acute in var. *pseudomaculatum*. Although all specimens which we have observed of var. *pseudomaculatum* do have acute upper leaves, a few specimens of var. *punctatum* also have acute upper leaves. Jones (1963) and Jones, *et al.* (1955) attribute *Hypericum pseudomaculatum* to Illinois, but do not indicate localities. Since we have never before observed a specimen of this plant from Illinois, we are documenting its occurrence in Illinois by the following collection. COLLECTION DATA: Jackson County: dry woods, July 26, 1964, J. Ozment & DeFilipps 1726.

Hypericum densiflorum Pursh. This shrubby St. Johnswort previously was known from southern Missouri, but the collection cited below is apparently the first from Illinois. This species closely resembles *H. lobocarpum* from which it differs only by the presence of three styles and a 3-celled capsule. Since these seem to be fundamental differences to us, we are treating the two as separate species. Other botanists prefer to treat *H. lobocarpum* as a variety of *H. densiflorum*. Although Fernald (1950) indicates that the tip of the leaf may be used to separate *H. densiflorum* from *H. lobocarpum*, we do not find this character to be reliable. The other shrubby St. Johnswort in Illinois with three styles is *H. spathulatum*, a species usually larger in all respects. COLLECTION DATA: Alexander County: swampy woods near Miller City, August 28, 1964, J. Ozment & R. DeFilipps 2712.

Hypericum sphaerocarpum Michx. var. **turgidum** (Small) Svenson. This southern variant of *H. sphaerocarpum* is recognized by its narrow, revolute leaves which have no apparent lateral nerves. In some cases, it looks more like *H. denticulatum* Walt. or *H. dolabriforme* Vent. than *H.*

sphaerocarpum var. *sphaerocarpum*. It is distinguished from *H. denticulatum* by its united styles and from *H. dolabriforme* (which does not occur in Illinois) by its shorter sepals and somewhat smaller flowers. COLLECTION DATA: Jackson County: railroad prairie, 6 miles north of Murphysboro, June 13, 1953, *R. H. Mohlenbrock* s.n.; Macoupin County: railroad prairie southwest of Carlinville, August 15, 1968, *J. White* 335; Monroe County: limestone bluffs, one mile south of Fults, August 7, 1962, *J. Ozment* s.n.

***Hypericum sphacrocarpum* Michx. var. *turgidum* (Small) (1945)** indicated that the Northern St. Johns-wort was known from Illinois, we are unaware of any Illinois collections of this species prior to the 1964 collection cited here. Since the overall range of *H. boreale* reaches from Newfoundland across to eastern Iowa, its occurrence in northern Illinois is not unexpected. This species is similar in appearance to the other small-flowered species of *Hypericum* in Illinois, but differs in the bracteal leaves which are similar to the cauline leaves in shape and size. COLLECTION DATA: Iroquois County: Iroquois County Conservation Area, August 17, 1964, *J. Ozment & R. DeFilipps* 2298.

***Aesculus glabra* Willd. var. *leucodermis* Sarg.** This variety differs from typical *A. glabra* in its distinctly whitened lower leaf surfaces and its whitish bark. At its only Illinois location, it grows in a mesophytic woods. COLLECTION DATA: Jackson County: along Kinkaid Creek, three miles south of Ava, July 14, 1970, *R. H. Mohlenbrock* s.n.

***Acer rubrum* L. f. *tomentosum* (Desf.) Dansereau.** This form is enigmatic in that the densely tomentose lower leaf surface of this upland taxon is identical with that of the swamp-inhabiting *A. rubrum* L. var. *drummondii* (H. & A.) Sarg. Only the fruits can be used reliably to separate these two taxa. Forma *tomentosum* has samaras up to 2.5 cm long, while var. *drummondii* has samaras over 3.0 cm long. COLLECTION DATA: Union County: upland woods, Pine Hills, July 3, 1970, *R. H. Mohlenbrock* s.n.

***Euonymus fortunei* (Turcz.) Hand.-Maz.** This climbing

evergreen ornamental has become rampant in a low woods in Giant City State Park. COLLECTION DATA: Jackson County: low woods, Giant City State Park, February 6, 1971, *R. H. Mohlenbrock* 21626.

Elaeagnus umbellatus Thunb. is previously unreported from Illinois. Collections from this small tree were made from an island in Lake-of-Egypt, Williamson County. At this site a large number of plants are well established and are spreading spontaneously. No evidence of a homesite exists on the island. *Elaeagnus umbellatus* differs from *E. angustifolia*, also a rare adventive in Illinois, by displaying both brown and silver scales on the leaves and twigs, while the latter has only silver scales present. COLLECTION DATA: Williamson County: island in Lake-of-Egypt, August, 1970, *J. Swayne* s.n.

Cynosciadium digitatum DC. represents a genus new to the Illinois flora. Collections of this species were made from the Pin Oak flats in the Greentree Reservoir, Jackson County. This area, long set aside as a waterfowl preserve, has seldom been botanized during the growing season since it is mostly innundated and infested with mosquitos. Collections made in 1969 and again in 1970 from widely separated areas indicate this species is well established at this southern Illinois site. Associated species include *Glyceria striata*, *Carex squarrosa*, *Quercus palustris*, and *Ptilimnium costatum*. The overall range of this species previously reached from Mississippi and Texas north to Oklahoma, and east to southeastern Missouri. COLLECTION DATA: Jackson County: Greentree Reservoir, Pin Oak flats, June 6, 1969, *R. Anderson & D. Evans* 1001.

Scutellaria ovata Hill var. *rugosa* (Wood) Fern. This taxon is very different in appearance from the other varieties of *S. ovata* (var. *ovata* and var. *versicolor*) in Illinois. Its small, rather sprawling habit is contrasted sharply with the large, erect stature of the other varieties. Perhaps the most striking difference exhibited by var. *rugosa* is found in the leaves, which are strongly wrinkled and seldom reach a length greater than 4 cm. In general, var. *rugosa*

occupies dry, rocky slopes, whereas var. *ovata* and var. *versicolor* occur more frequently in more mesic woodlands. Fernald (1950) indicates that var. *rugosa* is further distinguished by its smaller corolla (about 1 cm long). Illinois as well as Missouri material assignable to var. *rugosa* frequently has the corolla up to 1.5 cm long, while some corollas in var. *ovata* and var. *versicolor* may be less than 1.5 cm long. COLLECTION DATA: Monroe County: south of Fults, Illinois, August 14, 1952, *W. Bailey & J. Swayne* 2818.

Hypochoeris glabra L. This introduced species is not recorded in Gray's Manual of Botany, 8th edition (Fernald, 1950). The station closest to Illinois seems to be eastern South Carolina as reported by Radford, *et al.* (1964). In Illinois, this species was collected from waste ground where it grew with other pioneer-type weeds. The beakless outer achenes of *H. glabra* distinguish it from *H. radicata*, also a rare species in Illinois, in which all the nutlets are beaked. COLLECTION DATA: Jackson County: rear of 1401 Tripoli, Carbondale, July, 1969, *P. Thomson* s.n.

ADDITIONAL LOCALITIES FOR RARE
SOUTHERN ILLINOIS TAXA

Carex hystrix Muhl. This species is relatively common in the northern two-thirds of the state, but is known elsewhere in Illinois only from Pulaski and now Union County. Union County: LaRue Swamp, June 28, 1969, *D. Tindall & S. Wunderle* s.n.

Lychnis alba Mill. This Union County collection is from the farthest south locality for this species in Illinois. Union County: along Route 51, near Cobden, May 15, 1969, *R. H. Mohlenbrock & D. Evans* s.n.

Ranunculus carolinianus DC. The achenes of this species are larger (over 3.5 mm long) than those of *R. septentrionalis* and have a conspicuous broad, high keel near the margin of the achene. Previously this species was known from collections in Champaign and Hancock counties in the central part of the state. The collection reported here is

the first for southern Illinois. Union County: McCann Springs, May, 1968, *C. Ott* s.n.

Lotus corniculatus L. This adventive is becoming increasingly more common in Illinois. There are now three southern Illinois counties for this species, as well as several northern counties. Johnson County: roadside, near Goreville, July, 1969, *D. Evans & R. H. Mohlenbrock* 1046.

Trifolium pratense L. f. **leucochraceum** Aschers. & Prantl. Only a specimen from McLean County was previously known from Illinois. Randolph County: roadside, north of Prairie de Rocher, July 21, 1970, *D. Evans* 1108.

Hibiscus trionum L. The collection reported here is the farthest south for this species in Illinois. Jackson County: mud and sand flats of the Mississippi River, Grand Tower, October 9, 1968, *D. Evans* 441.

Myriopsyllum exalbescens Fern. This species was previously known only from the northern half of Illinois. Johnson County: Lake-of-Egypt, Beaver Neck, September 6, 1968, *J. Swayne* s.n.

Lysimachia terrestris (L.) BSP. This species was not known from the southern half of the state until it was collected at the edge of a swamp. Union County: LaRue Swamp, June 25, 1968, *M. Sadler* s.n.

Verbena hastata × **urticifolia** Pepon. This hybrid is scattered in Illinois, but its only southern Illinois localities previously had been from Hardin and Wabash Counties. Jackson County: roadside, Southern Illinois University campus, August 22, 1969, *D. Evans & R. H. Mohlenbrock* 1010.

Physalis pendula Rydb. The only previously known collection of this species is from Union County. Jackson County: mud flats of the Mississippi River, near Fountain Bluff, October 26, 1968, *D. Evans* 543.

Centaurea solstitialis L. Jackson County can now be added to Massac County for a second southern Illinois locality for this adventive. Jackson County: along Illinois Central Railroad, 1 mile S of Elkhville, August 11, 1970, *D. Evans* 1091.

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